abcam

Product datasheet

Anti-Glycogen synthase 1 (phospho S645) antibody ab53691

2 Images

Overview

Product name	Anti-Glycogen synthase 1 (phospho S645) antibody
Description	Rabbit polyclonal to Glycogen synthase 1 (phospho S645)
Specificity	ab53691 detects endogenous levels of Glycogen Synthase only when phosphorylated at serine 645.
Tested applications	**Suitable for:** ELISA, IHC-P
Species reactivity	**Reacts with:** Mouse, Human **Predicted to work with:** Rat
Immunogen	Synthetic phosphopeptide derived from human Glycogen Synthase around the phosphorylation site of serine 645 (P-P-S^P-P-S).
Positive control	Human skeletal muscle tissue.

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at -20°C. Stable for 12 months at -20°C.
Storage buffer	Preservative: 0.02% Sodium Azide Constituents: 50% Glycerol, PBS, 150mM Sodium chloride, pH 7.4
Purity	Immunogen affinity purified
Purification notes	ab53691 was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific phosphopeptide. The antibody against non-phosphopeptide was removed by chromatography using non-phosphopeptide corresponding to the phosphorylation site.
Clonality	Polyclonal
Isotype	IgG

Applications

Our Abpromise guarantee covers the use of **ab53691** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
ELISA		1/5000.
IHC-P		1/5.

Target

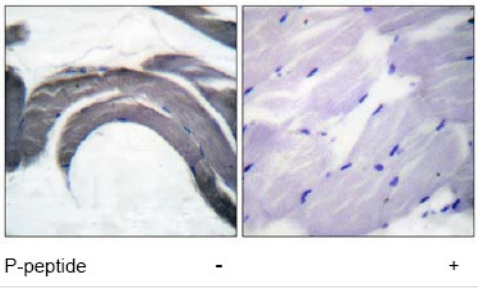
Function Transfers the glycosyl residue from UDP-Glc to the non-reducing end of alpha-1,4-glucan.

Pathway Glycan biosynthesis; glycogen biosynthesis.

Involvement in disease Defects in GYS1 are the cause of muscle glycogen storage disease type 0 (GSD0b) [MIM:611556]; also known as muscle glycogen synthase deficiency. GSD0b is a metabolic disorder characterized by fasting hypoglycemia presenting in infancy or early childhood. The role of muscle glycogen is to provide critical energy during bursts of activity and sustained muscle work.

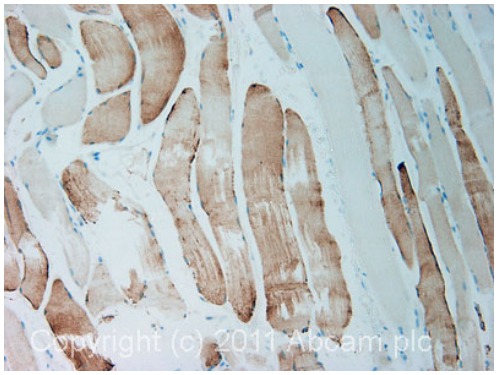
Sequence similarities Belongs to the glycosyltransferase 3 family.

Images



Immunohistochemistry (Paraffin-embedded sections) - Glycogen synthase 1 (phospho S645) antibody (ab53691)

ab53691 at 1/50 dilution staining Glycogen Synthase 1 in human skeletal muscle by Immunohistochemistry, Paraffin embedded tissue, in the absence or presence of the immunising peptide.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections)-Glycogen synthase 1 (phospho S645) antibody(ab53691)

IHC image of ab53691 staining in human normal skeletal muscle formalin fixed paraffin embedded tissue section, performed on a Leica Bond™ system using the standard protocol F. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH6, epitope retrieval solution 1) for 20 mins. The section was then incubated with ab53691, 5µg/ml, for 15 mins at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.

For other IHC staining systems (automated and non-automated) customers should optimize variable parameters such as antigen retrieval conditions, primary antibody concentration and antibody incubation times.

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